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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,087	07/23/2003	Erland R. Sandstrom	2160-1A (FJ-99-36-1A)	5939

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EXAMINER	
HUSON, MONICA ANNE	
ART UNIT	PAPER NUMBER
1732	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/28/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/625,087	SANDSTROM ET AL.	
	Examiner	Art Unit	
	Monica A. Huson	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-23,32-40 and 51-56* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-23,32-40 and 51-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *011204*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 32 is objected to because of the following informalities: The claim contains two periods. A claim must contain only one period. Appropriate correction is required.

Claim 19 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. This claim depends from itself. For purposes of examination, it will be interpreted that claim 19 depends from claim 14.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 32 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Gendron (U.S. Patent 4,286,940). Regarding Claim 32, Gendron shows that it is known to carry out a method of forming a container (Column 1, lines 8-11), comprising blowing a parison in a blow mold shaped in the form of a container (Column 2, lines 28-36); inserting within the blown container a tip which presses the base of said container against a mold face having structural configurations (e.g. neck, shoulder configuration, base feet) so as to mold said configurations onto the outside surface of said base (Figure 3, element 72),

wherein said container is of maximum cross section intermediate said base and said rim (Figure 3, "P" configuration).

Regarding Claim 33, Gendron shows the process as claimed as discussed in the rejection of Claim 32 above, including a method wherein said parison is formed from a polycarbonate plastic and said parison is blown by directing fluid pressure initially at the top of the parison and directing the fluid pressure from said top toward said base of said parison (Figure 3, element 72; Column 3, lines 40-43).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 11-13, 51-52, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gendron, in view of Schreckenberg et al. (U.S. Patent 4,333,809). Regarding Claim 11, Gendron shows that it is known to carry out a method of forming a container (Column 1, lines 8-11), the process comprising forming a moldable injection molded parison from a polycarbonate (Column 2, lines 24-28; Column 3, lines 40-43); and blow molding said parison in a mold shaped to define the container wherein cooling fluid is supplied to said mold to maintain the mold at a desired temperature (Column 2, lines 28-36; Column 6, lines 32-36). Gendron does not show using a hydrolysis stabilized polycarbonate. Schreckenberg et al., hereafter "Schreckenberg," show that it is known to carry out a molding process using a hydrolysis stabilized polycarbonate (Column 13, lines 3-6). Schreckenberg and Gendron are combinable because they are concerned with a similar technical field, namely,

methods of molding thermoplastic containers. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Schreckenberg's hydrolysis stabilized polycarbonate as the molding material in Gendron's molding process in order to avoid the need for aeration that is accomplished by using a hydrolysis stabilized polycarbonate (see Schreckenberg, Column 2, lines 33-36). Gendron does not specifically identify the temperature to which the mold is cooled. However, where general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation (MPEP 2144.05 (II) (A)). Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to cool the mold to the desired temperature based on the specific resin and its processing requirements.

Regarding Claim 12, Gendron shows the process as claimed as discussed in the rejection of Claim 11 above, but he does not specifically identify the temperature to which the mold is cooled. However, where general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation (MPEP 2144.05 (II) (A)). Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to cool the mold to the desired temperature based on the specific resin and its processing requirements.

Regarding Claim 13, Gendron shows the process as claimed as discussed in the rejection of Claim 11 above, but he does not show using a specific stabilizer as part of his molding composition. Schreckenberg shows that it is known to carry out a method wherein the hydrolysis stabilized polycarbonate composition includes carboxylic acid stabilizers and carboxylic acid anhydride stabilizers (Column 4, lines 45-49, 55-56). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Schreckenberg's stabilizers in the molding material in Gendron's molding

process in order to avoid the need for aeration that is accomplished by using a hydrolysis stabilized polycarbonate (see Schreckenberg, Column 2, lines 33-36).

Regarding Claim 51, Gendron shows that it is known to carry out a method of making an injection blow molded container (Column 1, lines 8-11) comprising injection molding a parison from a resin composition (Column 2, lines 24-28); blow molding said parison in a blow mold cavity supplied with cooling water maintained at a desired temperature, said cavity being shaped such that the container is provided with a base and a sidewall extending upwardly therefrom (Column 2, lines 28-36; Column 6, lines 32-36); and recovering the container from the mold (Column 4, lines 16-17). Gendron does not show using a hydrolysis stabilized polycarbonate. Schreckenberg shows that it is known to carry out a molding process using a hydrolysis stabilized polycarbonate (Column 13, lines 3-6). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Schreckenberg's hydrolysis stabilized polycarbonate as the molding material in Gendron's molding process in order to avoid the need for aeration that is accomplished by using a hydrolysis stabilized polycarbonate (see Schreckenberg, Column 2, lines 33-36). Gendron does not specifically identify the temperature to which the mold is cooled. However, where general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation (MPEP 2144.05 (II) (A)). Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to cool the mold to the desired temperature based on the specific resin and its processing requirements.

Regarding Claim 52, Gendron shows the process as claimed as discussed in the rejection of Claim 51 above, but he does not specifically identify the temperature to which the mold is cooled. However, where general conditions of

a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation (MPEP 2144.05 (II) (A)). Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to cool the mold to the desired temperature based on the specific resin and its processing requirements.

Regarding Claim 56, Gendron shows the process as claimed as discussed in the rejection of Claim 51 above, but he does not show using a specific stabilizer as part of his molding composition. Schreckenberg shows that it is known to carry out a method wherein the hydrolysis stabilized polycarbonate composition includes carboxylic acid stabilizers and carboxylic acid anhydride stabilizers (Column 4, lines 45-49, 55-56). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Schreckenberg's stabilizers in the molding material in Gendron's molding process in order to avoid the need for aeration that is accomplished by using a hydrolysis stabilized polycarbonate (see Schreckenberg, Column 2, lines 33-36).

Claims 14-21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gendron, in view of Rainville (U.S. Patent 4,180,379), further in view of Noonan (U.S. Patent 4,235,837). Regarding Claim 14, Gendron shows that it is known to carry out a method of forming a durable polycarbonate container with a rim, a base portion, and a sidewall therebetween (Figure 2, "P"; Column 1, lines 8-11; Column 3, lines 40-44) comprising injection molten polycarbonate into a mold cavity formed by a mold wall and a core to form a polycarbonate parison on the core (Column 2, lines 24-28; Column 3, lines 40-43); separating the parison from the mold wall by moving the parison on the core axially in a straight path away from the mold wall (Figure 1, element 24, 28); moving the parison on the core axially in a straight path into the blow mold (Figure 1, element 14, 18; Column 3, lines 24-

39); and expanding the parison on the core in the blow mold at a uniform temperature to form a hollow container having a sidewall integrally formed to a base and a fortified rim, wherein the container has a maximum cross section intermediate said rim and said base portion (Figure 4, "P"; Column 2, lines 28-32). Gendron does not specifically show moving the parison on the core in a substantially acruate path into axial alignment with the blow mold. Rainville shows that it is known to carry out an injection/blow molding process including moving the parison on the core in a substantially arcuate path into axial alignment with a blow mold which is in a side by side relationship with the mold cavity (Column 2, lines 5-12). Rainville and Gendron are combinable because they are concerned with a similar technical field, namely, methods of injection/blow molding. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Rainville's arcuate movement during Gendron's molding process in order to cool the parison during its movement from the injection station to the blowing station. Gendron also does not specifically identify the sidewall thickness. Noonan shows that it is known to carry out a blow molding process wherein the sidewall has a uniform thickness of from about 15 to 400 mils (Column 2, lines 49-50). Noonan and Gendron are combinable because they are concerned with a similar technical field, namely, methods of blow molding containers. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Noonan's sidewall thickness teachings during Gendron's molding process in order to form an article which meets the customer's specifications and expectations with regard to stiffness and durability.

Regarding Claim 15, Gendron shows the process as claimed as discussed in the rejection of Claim 14 above, but he does not specifically identify the sidewall thickness. Noonan shows that it is known to carry out a blow molding process wherein the sidewall has a uniform thickness of from about 15 to 400

mils (Column 2, lines 49-50). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Noonan's sidewall thickness teachings during Gendron's molding process in order to form an article which meets the customer's specifications and expectations with regard to stiffness and durability.

Regarding Claims 16-20, Gendron shows the process as claimed as discussed in the rejection of Claim 14 above, but he does not specifically identify the respective molding temperatures at which the polycarbonate is injected and blown, nor the injection pressures. However, where general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation (MPEP 2144.05 (II) (A)). Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to select appropriate molding temperatures and pressures based on the specific resin and its processing requirements.

Regarding Claim 21, Gendron shows the process as claimed as discussed in the rejection of Claim 20 above, including a method wherein the parison is expanded at a pressure of from about 100 to about 500 psi (Column 1, lines 56-58), meeting applicant's claim.

Regarding Claim 23, Gendron shows the process as claimed as discussed in the rejection of Claim 14 above, including using a polycarbonate (Column 3, lines 40-44). Although Gendron does not specifically disclose the melt flow rate of his polycarbonate, since he discloses the claimed material, the specific melt flow rate associated therewith is being interpreted as an inherent property taught by Gendron, therefore meeting applicant's claim.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gendron, Rainville, and Noonan, further in view of Schreckenberg. Gendron shows the process as claimed as discussed in the rejection of Claim 14 above,

but he does not show using an aromatic homopolycarbonate. Schreckenberg shows that it is known to carry out a method wherein the molding resin is an aromatic homopolycarbonate (Column 11, lines 44-45). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Schreckenberg's aromatic homopolycarbonate in Gendron's molding process in order to avoid the need for aeration that is accomplished by using Schreckenberg's specific polycarbonate (see Schreckenberg, Column 2, lines 33-36).

Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gendron, in view of Rainville. Regarding Claim 34, Gendron shows that it is known to carry out a method of forming a container provided with a rim, a base portion and a sidewall therebetween (Column 1, lines 8-11) comprising injecting molten resin into a mold cavity formed by a mold wall and a core to form a resinous parison on the core (Column 2, lines 24-28); separating the parison from the mold wall by moving the parison on the core axially in a straight path away from the mold wall (Figure 1, element 24, 28); moving the parison on the core axially in a straight path into the blow mold (Figure 1, element 14, 18); expanding the parison on the core in the blow mold at a uniform temperature to form a hollow container (Column 2, lines 28-32), said resin being a polystyrene (Column 3, lines 40-42), wherein said container is of maximum cross section intermediate said rim and said base portion (Figure 4, "P"). Gendron does not specifically show moving the parison on the core in a substantially acruate path into axial alignment with the blow mold. Rainville shows that it is known to carry out an injection/blow molding process including moving the parison on the core in a substantially arcuate path into axial alignment with a blow mold which is in a side by side relationship with the mold cavity (Column 2, lines 5-12). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use

Rainville's arcuate movement during Gendron's molding process in order to cool the parison during its movement from the injection station to the blowing station.

Regarding Claim 35, Gendron shows that it is known to carry out a method of forming a container provided with a rim, a base portion and a sidewall therebetween (Column 1, lines 8-11) comprising injecting molten resin into a mold cavity formed by a mold wall and a core to form a resinous parison on the core (Column 2, lines 24-28); separating the parison from the mold wall by moving the parison on the core axially in a straight path away from the mold wall (Figure 1, element 24, 28); moving the parison on the core axially in a straight path into the blow mold (Figure 1, element 14, 18); expanding the parison on the core in the blow mold by directing fluid initially at the top of the parison and directing the fluid pressure from said top toward the base of said parison at a uniform temperature to form a hollow container (Figure 4; Column 2, lines 28-32), said resin being a polycarbonate (Column 3, lines 40-42), wherein said container is of maximum cross section intermediate said rim and said base portion (Figure 4, "P"). Gendron does not specifically show moving the parison on the core in a substantially acruate path into axial alignment with the blow mold. Rainville shows that it is known to carry out an injection/blow molding process including moving the parison on the core in a substantially arcuate path into axial alignment with a blow mold which is in a side by side relationship with the mold cavity (Column 2, lines 5-12). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Rainville's arcuate movement during Gendron's molding process in order to cool the parison during its movement from the injection station to the blowing station.

Claims 36-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gendron, in view of Rainville, further in view of Shah et al. (U.S. Patent

6,153,680). Regarding Claim 36, Gendron shows that it is known to carry out a method of forming a container provided with a rim, a base portion and a sidewall therebetween (Column 1, lines 8-11) comprising injecting molten resin into a mold cavity formed by a mold wall and a core to form a resinous parison on the core (Column 2, lines 24-28); separating the parison from the mold wall by moving the parison on the core axially in a straight path away from the mold wall (Figure 1, element 24, 28); moving the parison on the core axially in a straight path into the blow mold (Figure 1, element 14, 18); expanding the parison on the core in the blow mold at a uniform temperature to form a hollow container (Figure 4; Column 2, lines 28-32), said resin being a polycarbonate (Column 3, lines 40-42), wherein said container is of maximum cross section intermediate said rim and said base portion (Figure 4, "P"). Gendron does not specifically show moving the parison on the core in a substantially acruate path into axial alignment with the blow mold. Rainville shows that it is known to carry out an injection/blow molding process including moving the parison on the core in a substantially arcuate path into axial alignment with a blow mold which is in a side by side relationship with the mold cavity (Column 2, lines 5-12). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Rainville's arcuate movement during Gendron's molding process in order to cool the parison during its movement from the injection station to the blowing station. Gendron does not show using a nanoparticle filler in his molding composition. Shah et al., hereafter "Shah," show that it is known to carry out a method wherein a nanoparticle filler is used in a molding composition (Column 4, lines 45-57). Shah and Gendron are combinable because they are concerned with a similar technical field, namely, methods of molding polypropylene articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Shah's nanoparticle filler in Gendron's molding

composition in order to provide scuff and scratch resistance (See Shah Column 4, lines 46-47).

Regarding Claim 37, Gendron shows the process as claimed as discussed in the rejection of Claim 36, including a method wherein the matrix resin is polypropylene (Column 3, lines 40-42), meeting applicant's claim.

Regarding Claim 38, Gendron shows the process as claimed as discussed in the rejection of Claim 36, but he does not show using a nanoparticle filler in his molding composition. Shah shows that it is known to carry out a method wherein a nanocomposite comprises from about 2 to about 12 percent of nanoparticles (Column 4, lines 45-57). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Shah's nanoparticle filler in Gendron's molding composition in order to provide scuff and scratch resistance (See Shah Column 4, lines 46-47).

Regarding Claim 39, Gendron shows the process as claimed as discussed in the rejection of Claim 38, but he does not show using a nanoparticle filler in his molding composition. Shah shows that it is known to carry out a method wherein said nanoparticles have an average size of less than about 2 microns (Column 4, lines 45-57). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Shah's nanoparticle filler in Gendron's molding composition in order to provide scuff and scratch resistance (See Shah Column 4, lines 46-47).

Regarding Claim 40, Gendron shows the process as claimed as discussed in the rejection of Claim 39, but he does not show using a nanoparticle filler in his molding composition. Shah shows that it is known to carry out a method wherein said nanoparticles are clay particles (Column 4, lines 45-57). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Shah's nanoparticle clay in Gendron's molding composition in order to provide scuff and scratch resistance (See Shah Column 4, lines 46-47).

Claims 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gendron, in view of Schreckenberg, further in view of Noonan.

Regarding Claims 53-55, Gendron shows the process as claimed as discussed in the rejection of Claim 51 above, but he does not specifically identify the sidewall thickness. Noonan shows that it is known to carry out a blow molding process wherein the sidewall and/or base has a uniform thickness of from about at least 30-40 mils (Column 2, lines 49-50). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Noonan's sidewall thickness teachings during Gendron's molding process in order to form an article which meets the customer's specifications and expectations with regard to stiffness and durability.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A. Huson whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Monica A Huson

Monica A Huson

December 20, 2006